

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
 (1) was not written for publication in a law journal and
 (2) is not binding precedent of the Board.

Paper No. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
 AND INTERFERENCES

MAILED

MAR 12 1997

PAT.&T.M. OFFICE
 BOARD OF PATENT APPEALS
 AND INTERFERENCES

Ex parte CLAUDE A. SHARPE

Appeal No. 95-3847
 Application 08/021,123¹

ON BRIEF

Before HAIRSTON, KRASS and FLEMING, Administrative Patent Judges.
 KRASS, Administrative Patent Judge.

¹ Application for patent filed February 23, 1993.

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DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1 through 21, constituting all the claims in the application.

The invention is directed to an automatic vehicle identification system capable of vehicle lane discrimination. More particularly, each transponder in the system determines its lane location by comparing the field strengths of the interrogation signals associated with each lane.

Representative independent claim 1 is reproduced as follows:

1. An automatic vehicle identification system capable of vehicle lane discrimination, the system comprising:

- a) a first directional antenna focused on a first vehicle lane;
- b) a first interrogator unit in electrical communication with said first directional antenna, said interrogator unit being operable to transmit a first downlink message to, and to receive a first uplink message from, said first directional antenna;
- c) a second directional antenna focused on a second vehicle lane;
- d) a second interrogator unit in electrical communication with said second directional antenna, said interrogator unit being operable to transmit a second downlink message to, and to receive a second uplink message from, said second directional antenna;

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e) a remote transponder carried on a vehicle in one of said vehicle lanes, said transponder having a transponder antenna operable to receive RF transmissions and having a field strength comparator operable to receive signals from said transponder antenna and to compare a first field strength pulse received from said first directional antenna to a second field strength pulse received from said second directional antenna.

The examiner relies on the following references:

Koerner et al. (Koerner)	3,775,742	Nov. 27, 1973
Dadds et al. (Dadds)	5,128,669	July 7, 1992
Brockelsby et al. (Brockelsby '732)	5,164,732	Nov. 17, 1992
Brockelsby et al. (Brockelsby '954)	5,192,954	Mar. 9, 1993
Hassett et al. (Hassett)	5,253,162	Oct. 12, 1993

Claims 1 through 21 stand rejected under 35 U.S.C.
§ 103 as unpatentable over Brockelsby '954 or Dadds in view of
Brockelsby '732, Hassett or Koerner.

Reference is made to the brief and answer for the
respective positions of appellant and the examiner.

OPINION

At the outset, we note the examiner's noncompliance
with MPEP § 1208 which permits the examiner to incorporate in the
answer a statement of the grounds of rejection merely by refer-
ence to the final rejection or a single other action on which it
is based. In the answer, the examiner refers to the Office
action rendered June 16, 1994 (Paper No. 8) for a statement of

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the rejection and reasons therefor. However, Paper No. 8 is merely responsive to appellant's remarks of February 25, 1994 and reference to Paper No. 8 finds therein the statement that the reasons for the rejection can be "found in the last Office action rendered November 23rd, 1993, incorporated herein" (page 2). When reference is finally made to the action of November 23, 1993 (Paper No. 6), one finds that this action is responsive to remarks by appellant of July 15, 1993 but a rejection and reasons therefor are generally set forth therein from the bottom of page 2 to page 3 of Paper No. 6. In the future, the examiner is reminded that if the examiner feels compelled to refer to a previous action for a complete statement of the rejection and reasons therefor, rather than repeating such in the answer itself, such reference is limited to a single previous action.

We will not sustain the rejection of claims 1 through 21 under 35 U.S.C. § 103 because the rejection is so devoid of specifics as to how the examiner is applying the references to the claimed limitations that no prima facie case of obviousness is established.

For example, instant independent claim 8 is five pages in length, listing very specific elements including, inter alia, first and second field strength detectors and comparators, first

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and second field demodulators, first and second field strength pulses, first and second backscatter modulators and a toll plaza comprising, inter alia, a reference oscillator generating a reference carrier wave.

Yet, rather than show how the cited art is applied against the claimed subject matter, the examiner merely indicates that Brockelsby '954 or Dadds discloses "the invention substantially as claimed" [bottom of page 2-action of November 23, 1993; Paper No. 6]. The examiner then states that these references do not disclose sensing field strength of the signal returns from the first and second areas to identify a transponder equipped vehicle. The examiner relies on Brockelsby '732, Hassett or Koerner to teach the comparing of field strengths and concludes therefrom that it would have been obvious to modify either of the primary references "in order to define first and second regions and differentiate from which region a transponder equipped vehicle is replying" [page 3-action of November 23, 1993; Paper No. 6].

However, there is no such comparison of field strengths in the secondary references and the examiner has not indicated on what portions of these references he relies.

We agree with appellant that, in fact, the applied references teach away from the claimed subject matter because, as

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we view the references [see specific portions thereof pointed out by appellant at pages 5-7 of the brief], these prior systems seek to avoid any overlap of interrogation signals, keeping separate fields within individual lanes. As appellant asks with regard to Brockelsby '732 at page 6 of the brief, "How can Brockelsby teach a field strength comparison in the transponder when the first and second fields are each confined within their respective lanes?"

The examiner states, at page 1 of Paper No. 8, that comparison of field strengths in order to discriminate between adjacent lanes "is considered to not only be obvious . . . but is alluded to in the prior art." The examiner then points to Dadds to show a first and second antenna radiating first and second antenna patterns and generating first and second signals for the purpose of lane discrimination. Dadds is very clear, however, that communications from different transponders must not overlap and that activation areas must be of such size that they can each only contain one vehicle and hence one transponder at any given time [see abstract of Dadds].

The examiner also says that it is

technically obvious . . . to merely sense signal strength between two spaced transmitters in order to determine which transmitter is closest Obviously the signal field strength drops with distance and this fact

can be used to distinguish between two signal sources [pages 1-2 of Paper No. 8].

— While this may seem so in retrospect, having the hindsight gleaned from appellant's disclosure, the examiner has pointed to nothing in the applied references which suggests that field strength of interrogation signals should be compared in order for each transponder to determine its lane location.

The examiner's contention [answer-page 4] that Figures 3, 6a and 6b do not show overlapping coverage areas is unpersuasive. It does not appear that appellant intentionally overlaps interrogation signals. Ideally, each lane should have one interrogation signal. However, where one signal strays into another lane for whatever reason, the comparison of field strength of the interrogation signals will easily determine which is the correct interrogation signal for that lane since that signal will have the greatest field strength.

The examiner's argument regarding the reference oscillator [answer-page 4] is also unpersuasive since the fact that an element may be, per se, known, does not necessarily make it obvious, within the meaning of 35 U.S.C. § 103, to apply that element in any situation for a specific purpose.

Since all of the claims include the comparison of field strengths of interrogation signals and the examiner has

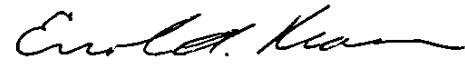
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not convinced us that such is suggested by the applied references, we hold that no prima facie case of obviousness has been established.

The examiner's decision rejecting claims 1 through 21 under 35 U.S.C. § 103 is reversed.

REVERSED


KENNETH W. HAIRSTON
Administrative Patent Judge)


ERROL A. KRASS
Administrative Patent Judge)


MICHAEL R. FLEMING
Administrative Patent Judge)

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